Subject: New functions to SysInfo
Posted by koldo on Wed, 03 Dec 2008 08:57:58 GMT

Hello all

After this first group of functions I want to include in January functions to handle with:

- Change or retrieve window size and position

- Screen capture: Certain window or all the screen
--- Image
--- Video

- Simulate user input
--- Mouse move and click without a mouse
--- Keyboard clicking without a keyboard

Best regards
Koldo

Subject: Re: New functions to SysInfo
Posted by forlano on Wed, 03 Dec 2008 20:27:38 GMT

koldo wrote on Wed, 03 December 2008 09:57Hello all

After this first group of functions I want to include in January functions to handle with:

- Change or retrieve window size and position

- Screen capture: Certain window or all the screen
--- Image
--- Video

- Simulate user input
--- Mouse move and click without a mouse
--- Keyboard clicking without a keyboard

Best regards
Koldo

Wonderfull!
These are the functions that I dream to have. I'm ready to test it.

Luigi

Subject: Re: New functions to SysInfo
Posted by Mindtraveller on Sun, 22 Mar 2009 09:24:17 GMT
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koldo wrote on Wed, 03 December 2008 11:57- Screen capture: Certain window or all the screen
--- Image Could you please tell if there are this function in SysInfo, and if it is - how is it called?

Subject: Re: New functions to SysInfo
Posted by koldo on Mon, 23 Mar 2009 17:44:01 GMT
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Hello Mindtraveller

They are not implemented.

Let me one week and they will be in SysInfo.

Best regards
Koldo

Subject: Re: New functions to SysInfo
Posted by tojocky on Tue, 24 Mar 2009 08:19:16 GMT
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koldo wrote on Wed, 03 December 2008 10:57Hello all

After this first group of functions I want to include in January functions to handle with:

- Change or retrieve window size and position

- Screen capture: Certain window or all the screen
--- Image
--- Video

- Simulate user input
--- Mouse move and click without a mouse
--- Keyboard clicking without a keyboard

Best regards
Koldo
NICE FUNCTION! I'LL BE GLAD TO TEST IT!

Subject: Re: New functions to SysInfo

Posted by koldo on Thu, 02 Apr 2009 10:01:23 GMT

Hello all

I will insert these functions in Bazaar this afternoon

void Mouse_LeftClick();
void Mouse_MiddleClick();
void Mouse_RightClick();
void Mouse_LeftDblClick();
void Mouse_MiddleDblClick();
void Mouse_RightDblClick();

void Mouse_SetPos(long x, long y, long windowId);
void Mouse_GetPos(long &x, long &y);

void Keyb_SendKeys(String text, long finalDelay = 100, long delayBetweenKeys = 50);

void Window_GetRect(long windowId, long &left, long &top, long &right, long &bottom);
void Window_SetRect(long windowId, long left, long top, long right, long bottom);

bool Window_SaveCapture(long windowId, const char *fileName);

Usually I prefer to wait an release things for Linux and Windows but this time I have few time so I have only done them for Windows.

Tested in MinGW and MSC9 in XP.

All feedback is acknowledged.

Best regards
Koldo

Subject: Re: New functions to SysInfo
Posted by tojocky on Fri, 08 May 2009 14:03:05 GMT

Hello Koldo!

Do you know how can I handle global shortcut in U++?

I want to realized global shortcut for Google Translation!

Somebody know how can I handle a global shortcut for win32 and Linux?

Thanks in advance!

Subject: Re: New functions to SysInfo
Posted by koldo on Sat, 09 May 2009 07:15:02 GMT

Hello tojocky

As I did not know about that I have taken this definition from Gnome, but seems to be useful everywhere:
Quote:Global shortcut keys enable you to use the keyboard to perform tasks related to your desktop, rather than tasks on the currently selected window or application

It seems to be related to the desktop system (gnome, kde)

Best regards
Koldo

Subject: Re: New functions to SysInfo
Posted by tojocky on Sat, 09 May 2009 09:09:10 GMT

koldo wrote on Sat, 09 May 2009 10:15Hello tojocky

As I did not know about that I have taken this definition from Gnome, but seems to be useful everywhere:
Quote:Global shortcut keys enable you to use the keyboard to perform tasks related to your desktop, rather than tasks on the currently selected window or application

It seems to be related to the desktop system (gnome, kde)

Best regards
Koldo

I need this handle in windows too!

Subject: Re: New functions to SysInfo
Posted by koldo on Sat, 09 May 2009 13:15:24 GMT

Hello tojocky

I think I understand you: when your program is running although hidden in the tray you want to open it by clicking some keys like the Ctrl+Ctrl used for Google Desktop, isn't it?

Best regards
Koldo

Subject: Re: New functions to SysInfo
Posted by koldo on Sat, 09 May 2009 14:42:35 GMT
View Forum Message <> Reply to Message

Hello tojocky

If that is your situation
koldo wrote on Sat, 09 May 2009 15:15I think I understand you: when your program is running
although hidden in the tray you want to open it by clicking some keys like the Ctrl+Ctrl used for
Google Desktop, isn't it?

you can do this in Windows:

To monitor keys, for example left Control key, you have to call GetKeyState().

This function answers you if the key is pressed and if it is toggled (this serves too for keys that are
not the Caps-Lock!).

A sample:

```
 char k = GetKeyState(VK_LCONTROL);
 if (k & 1)
  puts("Toggled");
 if (k & 128)
  puts("Pressed");
```
This works although your program is not focused, and does not affect to the normal keyboard use,
I mean, you will not steal keys to anybody.

When your program is in the tray you can enter it in a loop that checks every 100 ms the Ctrl

Best regards
Koldo

Subject: Re: New functions to SysInfo
Posted by tojocky on Sat, 09 May 2009 20:01:20 GMT
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Hello Koldo!

Yes, You understand me correct!

I want to handle the shortcut key when the GoogleTranslator is running (is in tray or opened main
window).

For the first I would like to handle the shortcut [Ctrl]+[C]+[C] or [Ctrl]+[Ins]+[Ins] . With this handle I can read from buffer the copied text and translate this.

If I'm wrong, please correct me.

If you can give me a simple example about this, i will be glad!

Thank you Koldo!

---

tojocky wrote on Sat, 09 May 2009 22:01Hello Koldo!

Yes, You understand me correct!

I want to handle the shortcut key when the GoogleTranslator is running (is in tray or opened main window).

For the first I would like to handle the shortcut [Ctrl]+[C]+[C] or [Ctrl]+[Ins]+[Ins] . With this handle I can read from buffer the copied text and translate this.

If I'm wrong, please correct me.

If you can give me a simple example about this, i will be glad!

Thank you Koldo!

Hello tojocky

You can use this
```
CONSOLE_APP_MAIN
{
 TimeStop t;
 int t_ctrl_l, t_ctrl_r;

 t_ctrl_r = t_ctrl_l = 0;
 while (true) {
  char ctrl_l = (char)GetKeyState(VK_LCONTROL);
  if (ctrl_l & 128)  // Left Ctrl pressed
   t_ctrl_l = t.Elapsed();
  char ctrl_r = (char)GetKeyState(VK_RCONTROL);
  if (ctrl_r & 128)  // Right Ctrl pressed
```

```
 t_ctrl_r = t.Elapsed();
if (t_ctrl_r - t_ctrl_l < 300 && t_ctrl_r - t_ctrl_l > 0) {
 puts("Voila");
 t_ctrl_r = t_ctrl_l = 0;
}

 Sleep(100);
}
```

This will out a "Voila" when a Ctrl left and a Ctrl right are pressed.

For a Gui application remove the while loop and the Sleep() and put this in a Timer function.

Best regards
Koldo

Subject: Re: New functions to SysInfo
Posted by Mindtraveller on Sun, 10 May 2009 07:23:24 GMT

tojocky wrote on Sun, 10 May 2009 00:01I want to handle the shortcut key when the GoogleTranslator is running (is in tray or opened main window).Testing keyboard with timeout is good, but there are two drawbacks:
- Pushing keyboard could possibly fit into "sleep" period
- If you make this sleep period too short (less than 200 msec) this will possibly degrade overall system performance, especially on older machines.

There is a way to check these keys in a less brute way. It is called keyboard hook. On short, you request operating system to install key sequence and message. When user presses these key sequence in ANY application, OS automatically sends hook-installed message to you main window.

That`s the way it`s done in Windows:
 http://www.codeguru.com/cpp/w-p/system/keyboard/article.php/ c5699

I don`t know really know if there is a common solution for setting hooks in POSIX systems this way easy. But what I found is the xbindkeys application:
http://hocwp.free.fr/xbindkeys/xbindkeys.html
I don`t know if it works properly and exist between many *nix window managers (I do personally use xfce and fluxbox). Hope this helps.

Subject: Re: New functions to SysInfo
Posted by koldo on Sun, 10 May 2009 20:08:28 GMT

Hello Mindtraveller

I am almost agree with you but I would like to clarify a little bit:

- In windows

Installing a keyboard hook is a good solution as there is no possibility to lose a key. The reason is because the OS will call your function every time an user press a key

- In Posix

xbindkeys seems to be the solution. But it does not do miracles. The core of the program is in an infinite loop beginning with:

```
  while (True) {
    while(!XPending(d)) {
     ...
     usleep(SLEEP_TIME*1000);
  }
...
```

where SLEEP_TIME is 100, so it checks every tenth of second if something has happened.

Install a keyboard listener is never cheap, but it is useful so at least they have to do things reliabily and fast.

Best regards
Koldo

Subject: Re: New functions to SysInfo
Posted by Mindtraveller on Sun, 10 May 2009 20:50:03 GMT
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Koldo, if you know better solution for POSIX - please tell. IMO xbindkeys is better than local cycle at least because it will make ONE cycle for ALL executed programs, and even if you run a number of programs based on U++/xbindkeys, you`ll get only ONE cycle. But I`m not really shure if it is portable solution. So one needs to investigate which window managers / distributives have this utility and which are not.

Subject: Re: New functions to SysInfo
Posted by tojocky on Mon, 11 May 2009 13:53:26 GMT
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Mindtraveller wrote on Sun, 10 May 2009 23:50Koldo, if you know better solution for POSIX -
please tell. IMO xbindkeys is better than local cycle at least because it will make ONE cycle for
ALL executed programs, and even if you run a number of programs based on U++/xbindkeys,
you`ll get only ONE cycle. But I`m not really shure if it is portable solution. So one needs to
investigate which window managers / distributives have this utility and which are not.

Someone knows what uses native Linux and MacOS.
Is possible to add this in U++?

Subject: Re: New functions to SysInfo
Posted by tojocky on Wed, 13 May 2009 15:12:00 GMT
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koldo wrote on Sun, 10 May 2009 09:50tojocky wrote on Sat, 09 May 2009 22:01Hello Koldo!

Yes, You understand me correct!

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window).

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Thank you Koldo!

Hello tojocky

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 while (true) {
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  if (ctrl_l & 128) // Left Ctrl pressed
   t_ctrl_l = t.Elapsed();
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   t_ctrl_r = t.Elapsed();

```
  if (t_ctrl_r - t_ctrl_l < 300 && t_ctrl_r - t_ctrl_l > 0) {
   puts("Voila");
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  }

  Sleep(100);
 }
```

This will out a "Voila" when a Ctrl left and a Ctrl right are pressed.

For a Gui application remove the while loop and the Sleep() and put this in a Timer function.

Best regards
Koldo

Hello Koldo,

Can you emulate shortcut event [Ctrl]+[C]+[C] in your example?

Sorry for incompetence, but in this event I'm new!

Subject: Re: New functions to SysInfo
Posted by koldo on Thu, 28 May 2009 21:29:56 GMT
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Hello all

I have fully documented SysInfo bazaar package.

As it is my first experience using Topic++, please check it and tell me if it is ok for you.

Now I am documenting OfficeAutomation following the same format.

I have also improved Windows hardware detection by using a bit of WMI (Windows Management Instrumentation).

Best regards
Koldo

Subject: Re: New functions to SysInfo
Posted by koldo on Sat, 06 Jun 2009 13:36:21 GMT
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Hello all

I have updated SysInfo documentation and added some functions for Posix and Windows:

- TrashBin handling

--FileToTrashBin: Deletes file by sending it to the Trash Bin.
--TrashBinGetCount: Returns the number of items (files and directories) located in the Trash Bin.
--TrashBinClear: Removes all the items (files and directories) located in the Trash Bin.

- Desktop Wall paper

--SetDesktopWallPaper
Sets desktop wallpaper. Supports Gnome, Kde v3 and Windows desktops.

---In Gnome, file has to be .png
---In Kde, file has to be .png, .gif or .jpg
---In Windows, file has to be .bmp

If path is empty, the desktop wallpaper is removed.

Best regards
Koldo

Subject: Re: New functions to SysInfo
Posted by koldo on Wed, 15 Jul 2009 21:37:41 GMT
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Hello all

I have included a new SysInfo_demo_console package to demonstrate many SysInfo functions in a gui program for Linux and Windows.

Some screenshots are included in a single image below.

There are also included in SysInfo new functions (only Windows by now) to:

- Record the desktop or window activity in a video file. If defined it includes real mouse movement
- Get the list of installed programs
- Get the list of video cards

Internally WMIC has been substituted by WMI, so the program has better access to the internal system including in Vista.

This advantage however requires only for MinGW to copy the next files:

- Rpcsal.h, DispEx.h, WbemCli.h, WbemDisp.h, Wbemidl.h, WbemProv.h and WbemTran.h

from \Microsoft SDKs\Windows\v6.1\Include
to \Upp\MinGW/include

- wbemuuid.lib
from \Microsoft SDKs\Windows\v6.1\Lib
to \Upp\MinGW\lib

Best regards
Koldo

File Attachments

1) SysInfo.png, downloaded 797 times

SysInfo

Menu

System Info | Windows list | Process list | Special Folders/Executables/Installed Software | Screen Grab

Manufacturer	Dell Inc.	Bios version	DELL - 15. Phoenix ROM BIOS PLUS Version 1.1(
Product name	OptiPlex 755	Bios release	03/11/2008
Version			
Processors num.	2	CPU Speed	2.325 GHz
Kernel	Windows XP	Version	5.1 Service Pack 2 (Build 2600) Architecture
Distro	Professional	Version	
Desktop	Windows XP	Version	

Memory in use   73   %
Total Physical   2111344640   bytes =1.97Gb   Total Paging   4095778816   bytes =3.81Gb   Total '
Free Physical   557375488   bytes =531.55Mb   Free Paging   2717548544   bytes =2.53Gb   Free \

Program compiled with: mingw   Version: 40400   Compilation date: Jul 2 2009

Processors

Proc	Vendor	Identifier		Architecture	Speed M
#0	GenuineI ▸	Intel(R) Core(TM)2 Duo CPU	E6550 ▸	x86 Family 6 Model 15 Stepp ▸	2327
#1	GenuineI ▸	Intel(R) Core(TM)2 Duo CPU	E6550 ▸	x86 Family 6 Model 15 Stepp ▸	2327

Video

Name	Description	Video Processor	Adapter RA	Video Mode Descripti
ATI Radeon HD 24(▸	ATI Radeon HD 240▸	ATI Radeon Graphi▸	256	1280 x 1024 x 429◂▸

Drives

Path	Type	Volume	Max	File	Total Use	Tota	Free User	Free	Total Free	Total
A:\	Not mou ▸									
C:\	Hard	Local	25 ▸	N1▸	1599323▸	148▸	8843495▸	82. ▸	8843495▸	82.:▸
D:\	Not mou ▸									
G:\	Network	Apl32	25 ▸	N1▸	102005◂▸	95. ▸	1004023▸	957▸	100402▸	957▸
7:\	Network	Mcwin31▸	25▸	N1▸	214748▸	2.0▸	6766510▸	645▸	6766510▸	645▸

[Update]

Ready

SysInfo

Menu

System Info | **Windows list** | Process list | Special Folders/Executables/Installed Software | Screen Grab

Windows list

Title	Wind	Proc	Name	File name
	33▸	24▸	SHELL32.dll	C:\WINDOWS\system32\SHELL▸
	30▸	24▸	SHELL32.dll	C:\WINDOWS\system32\SHELL▸
	432▸	24▸	SHELL32.dll	C:\WINDOWS\system32\SHELL▸
	11▸	24▸	SHELL32.dll	C:\WINDOWS\system32\SHELL▸
	659▸	28▸	SHSTAT.EXE	C:\Archivos de programa\McAf▸
	660▸	27▸	PDVDDXSrv.exe	C:\Archivos de programa\Cybe▸
	108▸	36▸	SysInfo demo gui.€▸	C:\desarrollo\upp\out\MINGW.▸
SysInfo demo gui - GUI - TheII▸	970▸	238▸	theide.exe	C:\Desarrollo\upp\theide.exe ▸
Caja de herramientas	11◂▸	249▸	gimp-2.6.exe	C:\Archivos de programa\GIMF▸
5.PNG-12.0 (RGB, 1 capa) 555▸	12▸	249▸	gimp-2.6.exe	C:\Archivos de programa\GIMF▸
*s.png-2.0 (RGB-vacÃ-o, 0 ca ▸	943▸	249▸	gimp-2.6.exe	C:\Archivos de programa\GIMF▸
	16◂▸	249▸	gimp-2.6.exe	C:\Archivos de programa\GIMF▸
Calculadora	110▸	328▸	calc.exe	C:\WINDOWS\system32\calc.e▸

Subject: Re: New functions to SysInfo
Posted by Mindtraveller on Thu, 16 Jul 2009 12:35:52 GMT

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Good job and handy package! Thanks!

Subject: Re: New functions to SysInfo
Posted by tojocky on Wed, 17 Feb 2010 13:42:28 GMT

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Hello Koldo!

Can I ask you about get screenshot from linux.

Why you use xwd shell command but not directly from x11 lib function
XImage *XGetImage(display, d, x, y, width, height, plane_mask, format)
      Display *display;
      Drawable d;
      int x, y;
      unsigned int width, height;
      unsigned long plane_mask;
      int format;

Here is full description:
http://tronche.com/gui/x/xlib/graphics/XGetImage.html

In the end you made a great job!

Regards, Ion Lupascu (tojocky)

Subject: Re: New functions to SysInfo
Posted by koldo on Wed, 17 Feb 2010 14:50:39 GMT

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tojocky wrote on Wed, 17 February 2010 14:42Hello Koldo!

Can I ask you about get screenshot from linux.

Why you use xwd shell command but not directly from x11 lib function
XImage *XGetImage(display, d, x, y, width, height, plane_mask, format)
      Display *display;
      Drawable d;
      int x, y;
      unsigned int width, height;
      unsigned long plane_mask;
      int format;

Here is full description:
http://tronche.com/gui/x/xlib/graphics/XGetImage.html

In the end you made a great job!

Regards, Ion Lupascu (tojocky)
Thank you tojocky

I recognize I was lazy when using xwd.

Now your proposal is in the todo list

Subject: Re: New functions to SysInfo
Posted by tojocky on Wed, 17 Feb 2010 17:20:37 GMT
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You are welcome!

I'm glad that my proposal help you!
Thank you for add this in the todo list!

koldo wrote on Wed, 17 February 2010 16:50
Thank you tojocky

I recognize I was lazy when using xwd.

Now your proposal is in the todo list